




# Data structures and R syntax

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# Workshop materials

☰ README.md ✎

## ¡Bienvenido al curso de ciencia de datos con R!

Este es un curso libre y gratis que puede usar para dar sus primeros pasos con el lenguaje de programación R.



Artwork by @allison\_horst

### Materiales del curso

Sesión	Presentación	Video
0-Preparación	No hay	<a href="https://www.youtube.com/watch?v=NCvJwJSMq60">https://www.youtube.com/watch?v=NCvJwJSMq60</a>
1- Introducción a las herramientas	Por subir	Por subir



[https://github.com/ronnyhdez/intro\\_data\\_analysis](https://github.com/ronnyhdez/intro_data_analysis)

# What do we want from today's session?

- Understand data structures in R
- Understand data types in R
- To know how to handle coercion
- To be able to use conditional operations







Data types

```
class( my_object )
```



# Data structures



1, 2, 3, 4

Vector

1 A 3 B

List

A	B	C
First	1	3.2
Second	2	4.5

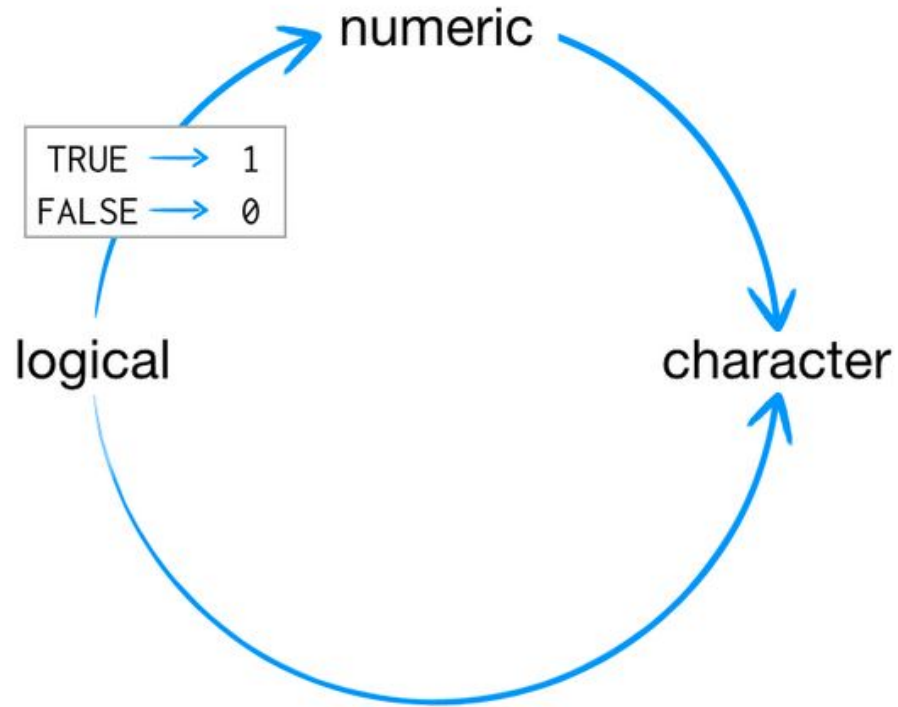
Data frame

```
mi_numeric_vector <- c(1, 2, 3)
```

```
mi_character_vector <- c("a", "b", "c")
```

```
mi_logical_vector <- c(TRUE, FALSE)
```





From the book *Hands on programming with R*



Break 12:00 a 12:10

# Factors and dates

```
fecha_hora <- Sys.time() # Guardar en un objeto
```

```
typeof(fecha_hora) # Tipo de dato
```

```
## [1] "double"
```

```
class(fecha_hora) # Clase del objeto
```

```
## [1] "POSIXct" "POSIXt"
```

# Factors and dates

```
> mi_objeto ← c("a", "b", "c")  
> mi_objeto  
[1] "a" "b" "c"  
> objeto_factor ← as.factor(mi_objeto)  
> objeto_factor  
[1] a b c  
Levels: a b c
```



# Conditional operators

Table 7.1: R's Logical Operators

Operator	Syntax	Tests
<code>&gt;</code>	<code>a &gt; b</code>	Is a greater than b?
<code>&gt;=</code>	<code>a &gt;= b</code>	Is a greater than or equal to b?
<code>&lt;</code>	<code>a &lt; b</code>	Is a less than b?
<code>&lt;=</code>	<code>a &lt;= b</code>	Is a less than or equal to b?
<code>==</code>	<code>a == b</code>	Is a equal to b?
<code>!=</code>	<code>a != b</code>	Is a not equal to b?
<code>%in%</code>	<code>a %in% c(a, b, c)</code>	Is a in the group c(a, b, c)?

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Supplementary text

The R Series

# R Markdown

The Definitive Guide



Yihui Xie  
J. J. Allaire  
Garrett Grolemund

 CRC Press  
Taylor & Francis Group  
A CHAPMAN & HALL BOOK

O'REILLY®



# R for Data Science

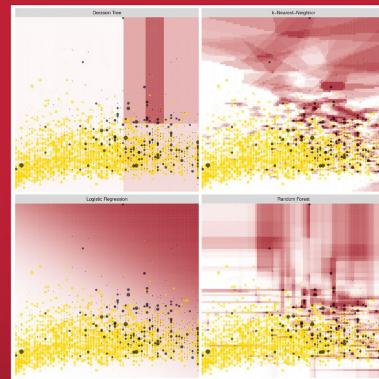
VISUALIZE, MODEL, TRANSFORM, TIDY, AND IMPORT DATA

Hadley Wickham &  
Garrett Grolemund

Texts in Statistical Science

# Modern Data Science with R

Second Edition



Benjamin S. Baumer  
Daniel T. Kaplan  
Nicholas J. Horton

 CRC Press  
Taylor & Francis Group  
A CHAPMAN & HALL BOOK

<https://bookdown.org/yihui/rmarkdown/>

<https://es.r4ds.hadley.nz/>


<https://es.r4ds.hadley.nz/>






# ¡Gracias!

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